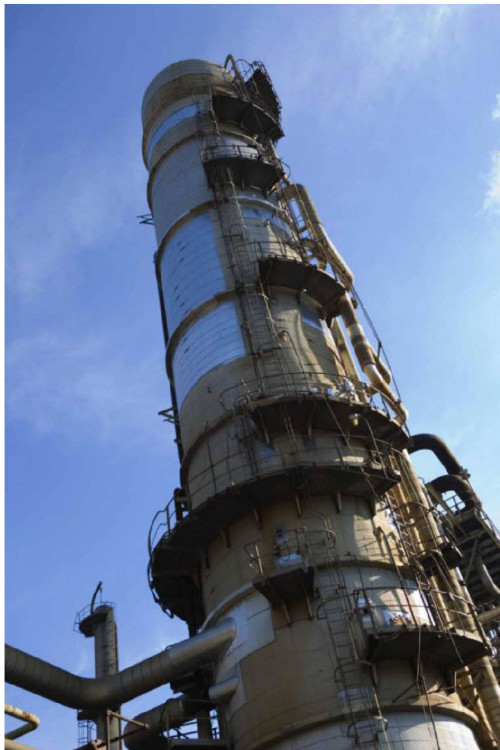


Spec Breaks



Senior Analyst and Inspector Training Crude Units

Corrosion at Spec Breaks



- Valves at spec breaks should always conform to the higher alloy or higher corrosion allowance pipe class
- Process conditions on lower alloy side of spec breaks must be checked routinely — valves can develop leaks over time
- All spec breaks must be identified and given proper inspection attention

Some Spec Breaks in Crude Units That Need Special Inspection Attention



- Chrome to carbon steel spec breaks in the column bottoms systems
- The zone where cladding terminates in columns
- Steel to chrome transitions in furnaces
- For piping, keep in mind
 - Piping downstream of bypassed or fouled exchangers
 - Instrumentation piping to alloy orifice taps
 - Sample stations
 - Seal flush systems